

CLAIMS:

1. A method for treating urinary incontinence comprising:
applying vacuum pressure to an instrument proximate to a urethral wall to draw a portion of the urethral wall into a cavity in the instrument;
forming a hole in the portion of the urethral wall disposed in the cavity; and
implanting a bulking prosthesis through the hole proximate to a urethral sphincter.
2. The method of claim 1, wherein the bulking prosthesis is in a miniature state at the time of implantation and assumes an enlarged state after implantation.
3. The method of claim 1, wherein
forming the hole comprises forming the hole with a needle having a lumen, and
wherein implanting the bulking prosthesis comprises pushing the bulking prosthesis through the lumen in the needle.
4. The method of claim 1, wherein the bulking prosthesis comprises a hydrogel.
5. The method of claim 1, wherein the bulking prosthesis comprises a material that absorbs fluid to assume the enlarged state.
6. A system comprising:
a tubular instrument having a distal end, the distal end including a cavity;
a vacuum port to draw a portion of a urethral wall into the cavity;
a needle to make a hole through the urethral wall in the portion of the urethral wall disposed in the cavity; and
a pushing agent to push a bulking prosthesis through the tubular instrument and through the hole in the urethral wall.

7. The system of claim 6, further comprising:
 - a source of vacuum pressure; and
 - a conduit to deliver the vacuum pressure from the source to the urethral wall.
8. The system of claim 6, wherein the tubular instrument comprises the needle.
9. The system of claim 6, wherein the tubular instrument comprises a cystoscope.
10. A device comprising:
 - a bulking prosthesis in the shape of a partial cylinder having an inner radius, wherein the bulking prosthesis comprises a hydrophilic polymer that forms a hydrogel in the presence of water, and
 - wherein the inner radius of the partial cylinder is sized to conform to close the urethra of a patient when the bulking prosthesis is implanted in the patient with an inner surface coaxial with the urethra of the patient and when the patient exercises voluntary control over an external urethral sphincter.
11. The device of claim 10, wherein the bulking prosthesis has a substantially half-cylinder shape.
12. The device of claim 11, wherein the bulking prosthesis assumes one of a miniature state and an enlarged state, and the prosthesis assumes the shape of the partial cylinder in the enlarged state.
13. The device of claim 10, further comprising a Dacron mesh surrounding the hydrophilic polymer.
14. The device of claim 10, further comprising a radiopaque material.
15. The device of claim 10, wherein the device includes a non-uniform cross-section.

Title: IMPLANTABLE DEVICES AND METHODS FOR TREATING URINARY INCONTINENCE
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16. A method for treating urinary incontinence comprising:
implanting a bulking prosthesis in tissue proximate to a urethral sphincter,
wherein the bulking prosthesis is in a miniature state at the time of implantation and
assumes an enlarged state after implantation, and wherein the bulking prosthesis includes a
long dimension of at least two millimeters in the enlarged state.
17. The method of claim 16, wherein the bulking prosthesis is a capsule-shaped bulking
prosthesis comprising a length of at least four millimeters.
18. The method of claim 16, wherein the bulking prosthesis is a spherical bulking
prosthesis.
19. The method of claim 16, wherein the bulking prosthesis is a partial cylinder bulking
prosthesis.